





PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002P05718WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)						
International application No. PCT/DE2003/001064	International filing date 01 April 2003		Priority date (day/month/year) 09 April 2002 (09.04.2002)				
International Patent Classification (IPC) or national classification and IPC H04Q 7/38							
Applicant SIEMENS AKTIENGESELLSCHAFT							
1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of6 sheets, including this cover sheet. ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of sheets. 3. This report contains indications relating to the following items: I ☐ Basis of the report II ☐ Priority III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV ☐ Lack of unity of invention V ☐ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI ☐ Certain documents cited							
VII Certain defects in the international application VIII Certain observations on the international application							
Date of submission of the demand 29 August 2003 (29.08.2003)		Date of completion o	f this report July 2004 (21.07.2004)				
Name and mailing address of the IPEA/EP		Authorized officer					
Facsimile No.		Telephone No.					





I.	I. Basis of the report						
1.	With	regard to	the elements of the international application:*				
		the inte	rnational application as originally filed				
	\boxtimes	the desc	ription:				
		pages	1-21	, as originally filed			
		pages		, filed with the demand			
		pages	, filed with the letter of				
	\boxtimes	the clair	ns:				
		pages		, as originally filed			
		pages	, as amended (together	with any statement under Article 19			
		pages		, filed with the demand			
		pages	1-15 , filed with the letter of	24 June 2004 (24.06.2004)			
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		pages	1/2-2/2	, as originally filed			
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	These	the lang the lang the lang the lang or 55.3)	guage of a translation furnished for the purposes of international search (under Ruguage of publication of the international application (under Rule 48.3(b)). Guage of the translation furnished for the purposes of international preliminary	which is: le 23.1(b)). examination (under Rule 55.2 and/			
3.	prelin	minary ex containe filed tog furnishe furnishe	amination was carried out on the basis of the sequence listing: ed in the international application in written form. gether with the international application in computer readable form. ed subsequently to this Authority in written form. ed subsequently to this Authority in computer readable form.				
		internat	tement that the subsequently furnished written sequence listing does not ional application as filed has been furnished.				
	Ш	The sta	tement that the information recorded in computer readable form is identical mished.	to the written sequence listing has			
4.		The am	endments have resulted in the cancellation of:				
		L t	he description, pages				
		<u></u>	he claims, Nos				
		L t	he drawings, sheets/fig				
5.			ort has been established as if (some of) the amendments had not been made, sin he disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**	ce they have been considered to go			
*	Repla in thi and 7	s report	neets which have been furnished to the receiving Office in response to an invitate as "originally filed" and are not annexed to this report since they do not	ion under Article 14 are referred to contain amendments (Rule 70.16			
**	Any re	eplaceme	nt sheet containing such amendments must be referred to under item $\it 1$ and annex	ed to this report.			

v.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
1.	Statement						
	Novelty (N)	Claims	1-15	YES			
		Claims		NO			
	Inventive step (IS)	Claims	1-15	YES			
		Claims		NO			
	Industrial applicability (IA)	Claims	1-15	YES			
		Claims		NO			

Citations and explanations

Reference is made to the following documents:

D1: WO 98 25392 A

D2: ETSI TS 123 140 V3.0.1 (2000-03); Technical Specification: Universal Mobile Telecommunication System (UMTS); Multimedia Messaging Service (MMS); Functional description; Stage 2 (3G TS 23.140 version 3.0.1 Release 1999)

- D3: Wireless Application Protocol;
 WAP-209-MMSEncapsulation-20020105-a;
 Version 05-Jan-2002.
- 1. The present invention relates to a method for transmitting data, in particular with multimedia content, from a first communications unit to a second communications unit in a communications network and in a network system as per the features of the preamble of claims 1 and 12.
- 2. If a first communications unit sends a multimedia message (MM) to a second communications unit via a network system, said MM is first stored in the

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network system. Usually, the MM is provided with a validity period and, when this has expired, the MM is downloaded by the second communications unit. Different methods for transmitting MMs are known in the prior art.

In document D1, an MM is first sent from a first communications unit to a network system where it is verified that a predetermined retrieval condition has been satisfied. If said condition has not been satisfied, a transmission status message, to the effect that the MM cannot be delivered, is sent from the network system to the first communications unit.

Documents D2 (paragraph 7) and D3 (paragraphs 6.5 and 7.2.23), cited by the applicant, represent the prior art in the ETSI and the WAP Forum bodies responsible for standardisation. According to said documents, the message "M-Delivery.ind" from the network system informs the first communications unit of the status of the MM transmission. The following states are defined: retrieved; rejected; deferred; unrecognised; expired.

A substantial disadvantage of the present classification by state is that, if the "time expired" state is returned, the first communications unit is not aware whether the second communications unit has intentionally failed to download the transmitted MM from the network system or whether the MM could not be delivered merely because the second communications unit was unobtainable within the validity period.

- 4. The **problem** addressed by the present invention is that of informing the first communications unit in the latter event.
- 5. The problem is solved by means of a method for transmitting data, in particular with multimedia content, from a first communications unit to a second communications unit in a communications network and in a network system, as per the features of the characterising part of claims 1 and 12.

According to the invention the data sent is "undeliverable" if "good" reception of the transmitted data, or of a retrieval information report concerning the data to be sent to the second communications unit, is not acknowledged by the second communications unit by means of an appropriate confirmatory notification.

- 6. The present invention is advantageous in that the first communications unit is thereby assisted in deciding whether the MM in question should be resent with a longer validity period to ensure that it reaches the second communications unit.
- 7. The subject matter of the present invention is not disclosed in, or obvious from, the documents cited in the international search report.
- 8. The subject matter of independent claims 1 and 12 is therefore considered to be novel and to involve an inventive step (PCT Article 33(2) and (3)).

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- 9. Claims 2 to 11 and 13 to 15 are dependent on claims 1 and 12 and therefore likewise satisfy the requirements of PCT Article 33(2) and (3) in respect of novelty and inventive step (PCT Article 33(4)).
- 10. The present invention is industrially applicable (PCT Article 33(4)).

Miscellaneous:

Pursuant to PCT Rule 5.1(a)(ii), the introductory part of the description should have cited document D1, said document being relevant prior art for the purpose of the present application, and briefly outlined the relevant prior art contained in D1.

Patent Claims

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1. A method for transmitting data, particularly having multimedia contents, from a first communications unit (10; 110) to a second communications unit (40; 114) in a telecommunications network (10, 20, 30, 40; 110, 112, 114), whereby at least one transmission status message (M-Delivery.ind) assigned to the data is transmitted to the first communications unit (10; 110), c h a r a c t e r i z e d b y t h e f a c t that in the event of the non-deliverability of the data to the second communications unit (40; 114), an item of information

concerning the non-deliverability of the sent data is provided in

the transmission status message $(M-D_{e}^{0})$.

- 2. A method as claimed in Claim 1, c h a r a c t e r i z e d b y t h e f a c t that the item of information concerning the non-deliverability of the sent data is provided in the transmission status message (M-Delivery.ind) if the data cannot be delivered to the second communications unit (40; 114) within a definable period of validity.
- 3. A method as claimed in Claim 1 or 2,
 c h a r a c t e r i z e d b y t h e f a c t
 that non-deliverability of the data sent applies if the correct
 25 receipt of the data sent and/or of a recipient notification message
 (M-Notification.ind) concerning the data to be transmitted to the
 second communications unit (40; 114) is not acknowledged by the
 second communications unit (40; 114) by means of a respective



associated confirmation message (M-NotifyResp.ind, M-Acknowledge.ind).

- 4. A method as claimed in one of Claims 1 to 3,
 5 characterized by the fact that the telecommunications network (10, 20, 30, 40; 110, 112, 114) comprises a switching arrangement (20, 30; 112) by way of which the data is transmitted from the first communications unit (10, 110) to the second (40, 114), whereby the switching arrangement (20, 30, 112) establishes the non-deliverability of the data sent and sends the transmission status message (M-Delivery.ind) to the first communications unit (10, 110).
- 5. A method as claimed in Claim 1 of 4,

 15 characterized by the fact
 that the data is transmitted by means of the "Multimedia Messaging
 Service" (MMS) by using the "Wireless Application Protocol" (WAP).
- 6. A method as claimed in Claim 5,

 20 characterized by the fact
 that the recipient notification message (M-notification.ind)
 comprises an MMS message in the category "X-Mms-Message-Type: mnotification.ind".
- 7. A method as claimed in Claim 5 or 6, characterized by the fact that the data is transmitted to the recipient by means of at least one MMS message in the category "X-Mms-Message-Type: m-retrieve-conf".



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- 8. A method as claimed in one of Claims 5 to 7, characterized by the fact that the transmission status message (M-Delivery.ind) comprises an MMS message in the category "X-Mms-Message-Type: m-delivery-ind".
- 9. A method as claimed in Claim 8,
 c h a r a c t e r i z e d b y t h e f a c t
 that the item of information concerning the non-deliverability of
 the data sent is represented by the value "<Octet 133>" in the data
 10 field "X-Mms-Status" of the transmission status message (Mdelivery.ind).
 - 10. A method as claimed in one of Claims 1 to 9, characterized by the fact
- that the first telecommunications unit (10; 110) and/or the second (40; 114) comprises a mobile communication module.
 - 11. A method as claimed in one of claims 1 to 10, characterized by the fact
- that the telecommunications network (10, 20, 30, 40; 110, 112, 114) is realized as a mobile communication network at least in areas and the first communications unit (10; 110) and/or the second (40; 114) operate(s) as defined by the GSM/ GPRS, EDGE and/or UMTS standards.
- 12. A switching arrangement (20, 30; 112) for transmitting data in a telecommunications network (10, 20, 30, 40; 110, 112, 114), particularly according to a method defined by one of the foregoing claims, from a first communications unit (10; 110) to a second communications unit (40; 114), whereby
- 30 the switching arrangement (20, 30; 112) comprises an apparatus for

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Acknowledge.ind).

producing a transmission status message which is assigned to the data to be transmitted to the second communications unit (40; 114), c h a r a c t e r i z e d b y t h e f a c t that the apparatus for producing the transmission status message provides an item of information concerning the non-deliverability of the data to be transmitted in the transmission status message (M-Delivery.ind) if the data cannot be delivered to the second communications unit (40; 114).

- 13. A switching arrangement as claimed in Claim 12, characterized by the fact that the apparatus for producing the transmission status message provides the item of information concerning the non-deliverability of the data to be transmitted in the transmission status message (M-Delivery.ind) if the data cannot be delivered to the second communications unit (40; 114) within a definable period of validity.
- 14. A switching arrangement as claimed in Claim 12 or 13, characterized by the fact

 20 that with regard to the apparatus for producing the transmission status message, non-deliverability of the data sent applies if the correct receipt of the data sent and/or of a recipient notification message (M-Notification.ind) concerning the data to be transmitted to the second communications unit (40; 114) is not acknowledged by the second communications unit (40; 114) by means of a respective associated confirmation message (M-NotifyResp.ind, M-

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15. A switching arrangement as claimed in one of Claims 12 to 14, c h a r a c t e r i z e d b y t h e f a c t that the switching arrangement (20, 30; 112) comprises an apparatus for transmitting the transmission status message to the first communications unit (10; 110)

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